



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/921,601	08/06/2001	Mitsuhiro Nagase	427-45	9635

23117 7590 04/26/2005

NIXON & VANDERHYE, PC
1100 N GLEBE ROAD
8TH FLOOR
ARLINGTON, VA 22201-4714

EXAMINER

HAILU, TADESSE

ART UNIT PAPER NUMBER

2173

DATE MAILED: 04/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/921,601

Applicant(s)

NAGASE, MITSUHIRO

Examiner

Tadesse Hailu

Art Unit

2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18 and 21-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18 and 21-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08).
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the AMENDMENT entered on April 11, 2005 for the patent application (09/921,601).
2. The indicated allowability of claim 21 is withdrawn in view of the newly discovered reference(s) to Garner (US Pat No 5,496,174). Rejections based on the newly cited reference(s) follow.

Priority

3. The present patent application claims priority from Foreign Application Number P2000-241623 filed 9/8/2000.

Status of the claims

4. The pending claims 18, and 21-25 are examined herein as follows.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 18, 21-23, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yano Hiroshi (JP410020769A) in view of Garner (US Pat No. 5,496,174).

With regard to claim 21:

Yano Hiroshi discloses an information input/output device for visually impaired users comprising a user-actuable input device (e.g., 13, 43, 103, and 173)

Art Unit: 2173

comprising a braille output surface (e.g., 12, 42, 102, and 172) for outputting braille characters (see paragraphs 1, 2, 13, 14, 23, 31, 41, 53, and 58), wherein the braille output surface (e.g., 13, 43, 103, and 173) comprises opening through which selectively actuated pins (e.g., 12, 42, 102, and 172) extend to form braille characters (see paragraphs 23, 30, etc).

Yano Hiroshi further discloses a processing system (e.g., 21, 71, and 141) for controlling the outputting of the braille characters on the braille output surface and detecting inputs (via finger location detection sensor 47, paragraph 30) in response to actuation of the input (see also paragraphs 31 and 41).

The information input/output device for visually impaired users further comprising an actuator responsive to signal from the processing system for selectively actuating the pins (see paragraphs 8, 13, 14, 23, 31, 41, and 53).

Yano Hiroshi, however, does not disclose that the actuator comprising a fluid actuating mechanism as claimed. Garner on the other hand discloses a method and device for producing tactile display using an electrorheological fluid; wherein the electrorheological fluids implement large arrays of electrically actuated Braille character cells. Garner further discloses that the electrorheological fluid build up (or filled) in the corresponding dot actuator chambers (Garner, Abstract, column 1, lines 13-26, column 3, lines 3-5, column 5, lines 1-3, Fig. 1).

Yano Hiroshi and Garner are analogous art because they are from the same field of endeavor, Braille displays.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the fluid actuated actuator of Garner with actuating means of Yano Hiroshi.

The suggestion /motivation for doing so would have been to provide a tactile display device which avoids pressurizing and unpressurizing the entire electrorheological fluid flow system for each cycle of tactile dot actuation. Yet another advantage is to provide a tactile display device which provides consistent up and down positions among the plurality of tactile dots (Garner, column 3, lines 21-28).

Therefore, it would have been obvious to combine Garner with Yano Hiroshi to obtain the invention as specified in claim 21.

With regard to claim 18:

Yano Hiroshi in view of Garner further discloses that the information input/output device for visually impaired users further includes a sequence of braille characters in output to the braille output surface (Yano Hiroshi, aragraphs 37-41).

With regard to claim 22:

Yano Hiroshi in view of Garner further discloses that the information input/output device for visually impaired users further includes that the user-actuatable input device comprises a press (push) button (Yano Hiroshi, aragraph 23).

With regard to claim 23:

Yano Hiroshi in view of Garner further discloses that the information input/output device for visually impaired users embodied as part of an automatic ticket vending machine (Yano Hiroshi, paragraph 1).

With regard to claim 25:

Yano Hiroshi in view of Garner further discloses that the information input/output device for visually impaired users embodied as part of (ATM, an automated-teller (a cash dispenser) (Yano Hiroshi, paragraph 1).

6. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yano Hiroshi (JP410020769A) in view of Garner (US Pat No 5,496,174) further in view of Admitted Prior Art (page 1).

While Yano Hiroshi in view of Garner suggested that the information input/output device for visually impaired users could be embodied as various equipment including ATM, automated teller, an automatic-reset machine, an automatic ticket vending machine, and an information retrieval machine. Yano Hiroshi in view of Garner, however, does not mention embodying the information device as fare adjustment machine. But, *the Admitted Prior art* (page 1) describes said fare adjustment machine. Yano Hiroshi, Garner and the Admitted Prior art are analogous art because they are from the same field of invention, information input/output device for impaired users.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the information input/output device for visually impaired users as a fare adjustment machine as described in the Admitted Prior Art with Yano Hiroshi and Garner because visually impaired users could use said fare adjustment machine. Therefore, it would have been obvious to combine Admitted Prior Art with Yano Hiroshi to obtain the invention as specified in claim 24.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Tadesse Hailu, whose telephone number is (571) 272-4051. The Examiner can normally be reached on M-F from 10:00 - 630 ET. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, John Cabeca, can be reached at (571) 272-4048 Art Unit 2173.
8. An inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Tadesse Hailu
Patent Examiner
4/20/05

